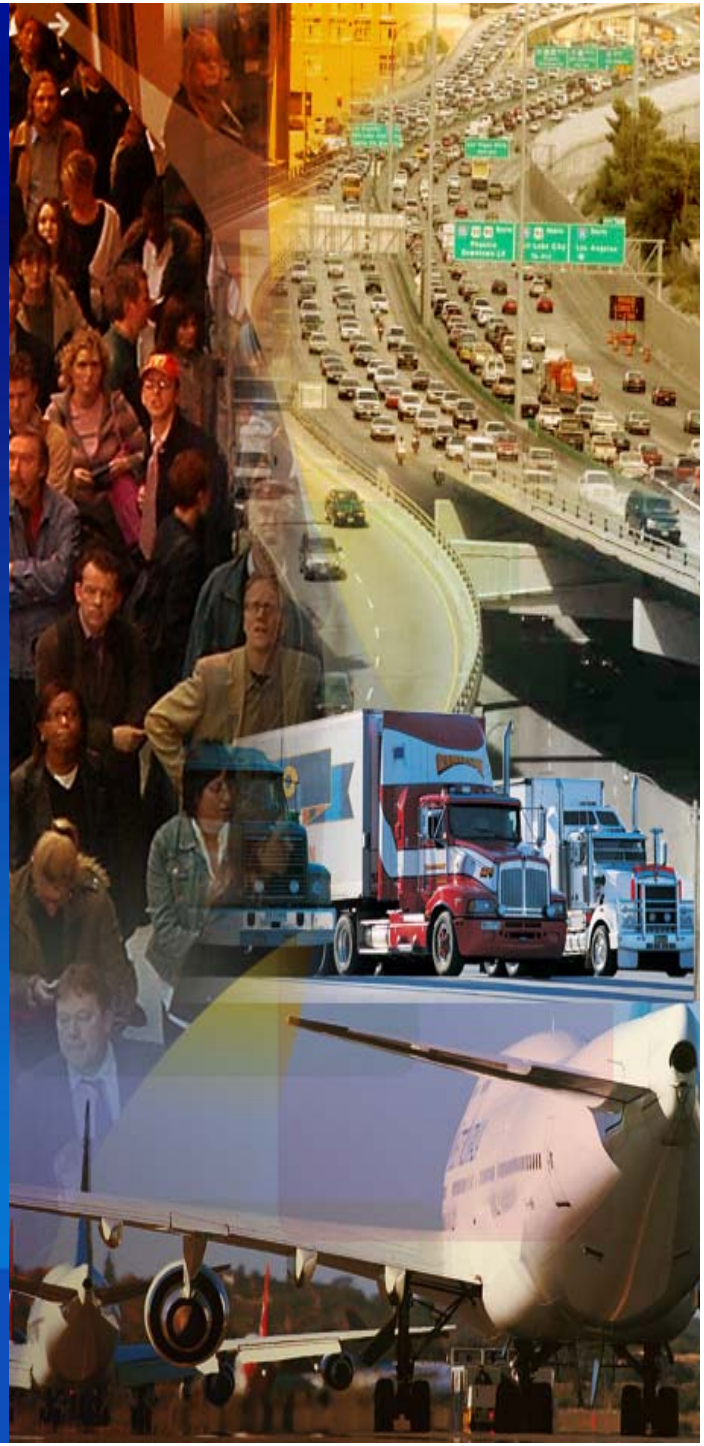
U.S. Department of Transportation

Infrastructure Financing Trends and Opportunities:

Public-Private Partnerships (PPPs) and Pricing



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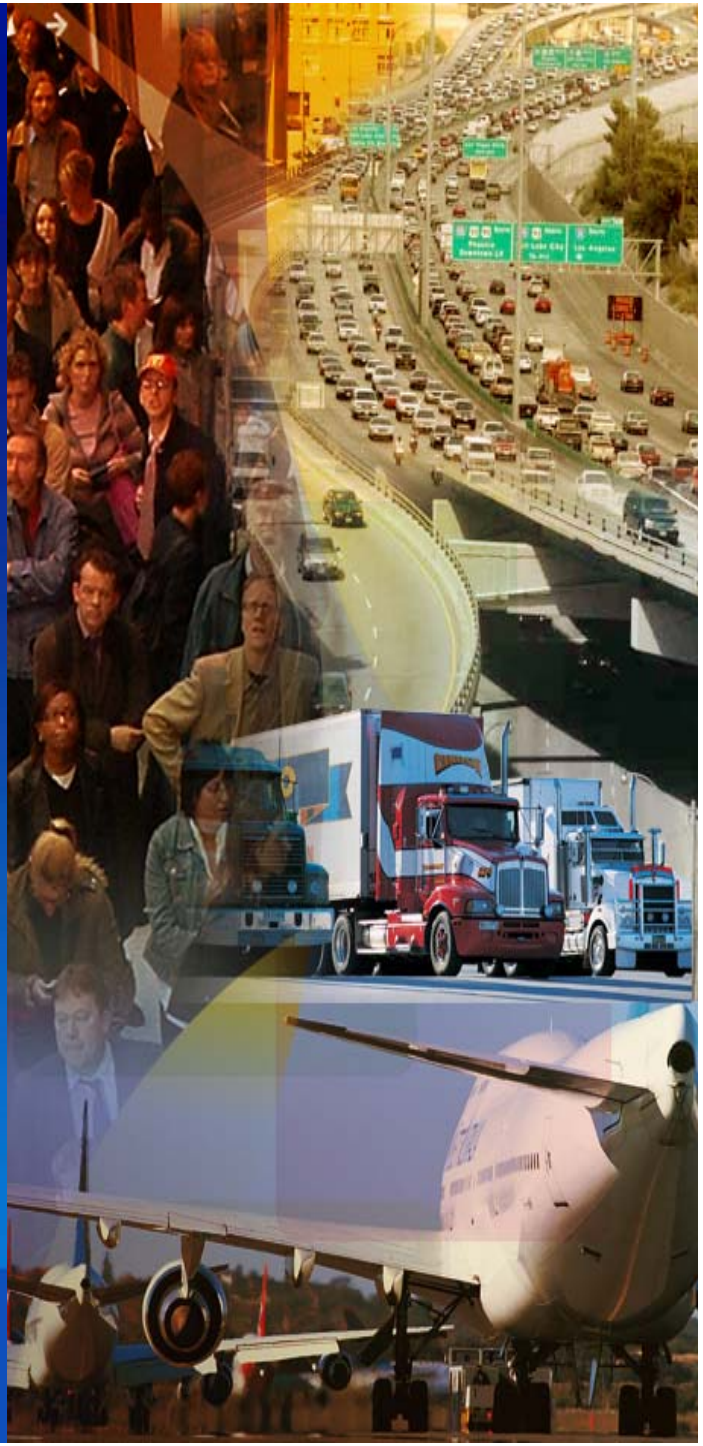
U.S. Department of Transportation

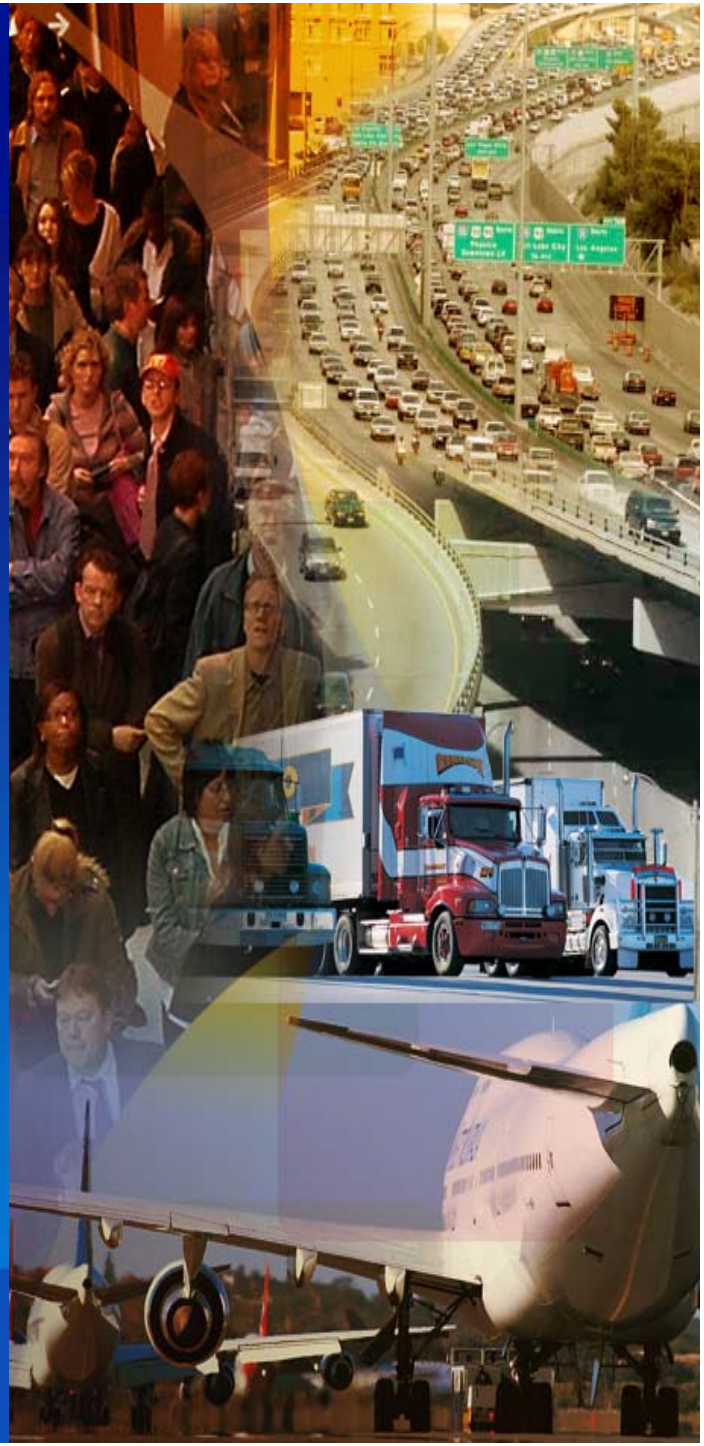
August 11, 2008

Outline of Presentation

1. Policy Framework
2. PPPs: An Overview
3. Pricing: An Overview
4. Federal Programs
5. Case Studies



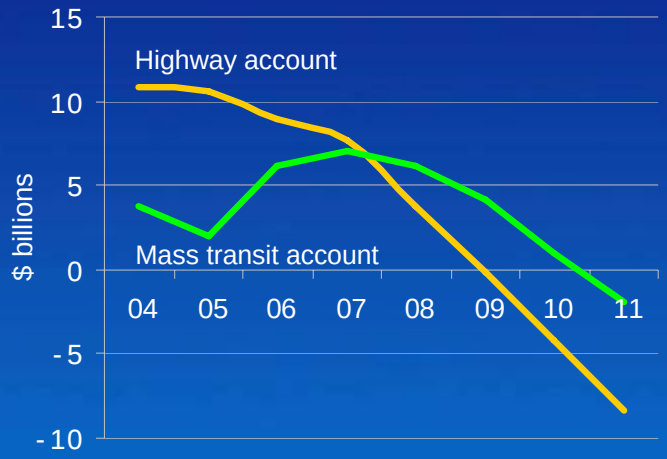
Policy Framework



PPPs and Pricing Address Resource Scarcity

- All levels of government in the U.S. are having a difficult time keeping up with the demand for transportation investment and are increasingly using transportation related taxes and fees for system preservation and maintenance
- PPPs and pricing provide access to vast amounts of private capital available for investment in transportation
  - *The Financial Times* reported at the end of 2007 that estimates of equity raised for investment in global infrastructure run from $50 billion to $150 billion
  - *The McKinsey Quarterly* in February 2008 reported that the world's 20 largest infrastructure funds now have nearly $130 billion under management, 77 percent of which was raised in 2006 and 2007

Highway trust fund balances (historical and projected), 2004 - 2011[1]



1. Source: FY08 President's Budget Projections.

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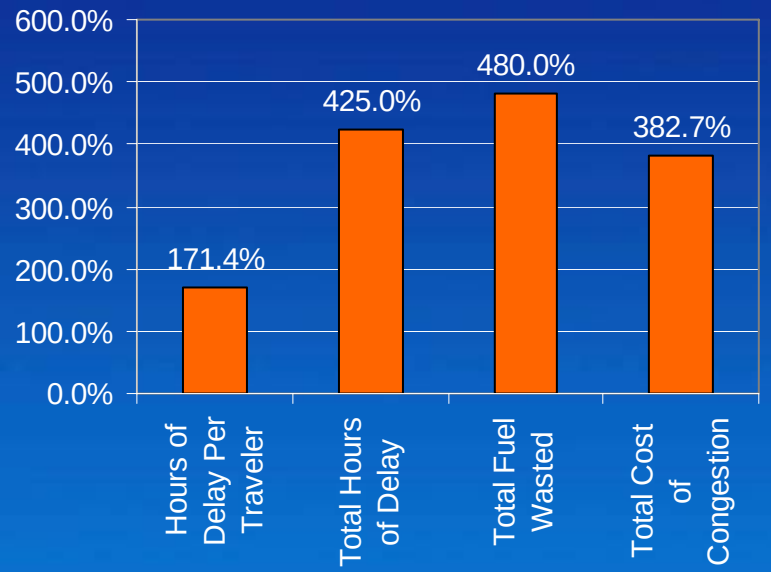
PPPs and Pricing Address Congestion

- While we spend record amounts on highways and transit, congestion and system unreliability continue to increase, as they have for decades
- The gas tax is poorly suited to regulate road use and reduce congestion
- PPPs and pricing use innovative technologies and market forces to manage congestion and provide high quality projects and better performance in congested urban areas

Increase in Congestion
1982 to 2005[1]



1. Texas Transportation Institute 2007 Urban Mobility Report for urban U.S. highways

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PPPs and Pricing Address Resource Misallocation

- The political nature of the transportation funding process can make it difficult to fund priorities:
  - Revenues are often deposited in centralized trust funds and allocated to political or special purpose projects
  - SAFETEA-LU has more than 6000 earmarks worth more than $23B
  - Annual budgetary pressures can leave major projects undercapitalized, increasing long-term O&M costs
- Many highway investments are made without cost-benefit analysis and outcomes are rarely evaluated
- PPPs and pricing are research-based and follow demand, not political considerations

PPPs and Pricing Help Align National Policies

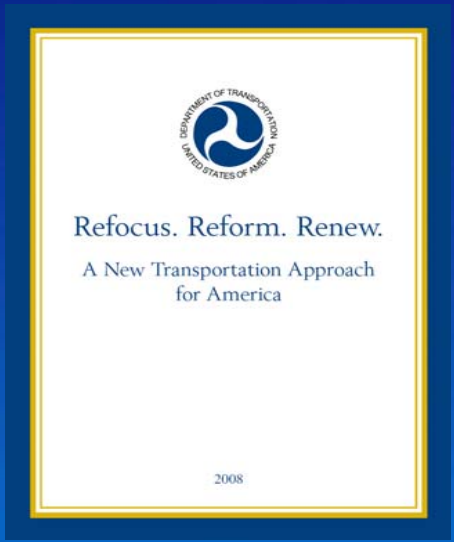
- National, bi-partisan consensus to reduce gasoline consumption for energy security & environmental reasons
- Yet, our primary transportation funding mechanism – a charge per gallon of fuel purchased – relies on the use of more gas
- PPPs and pricing help align energy, environmental and transportation policies by substituting private capital and direct user fees for gas taxes

PPPs and Pricing Accelerate Project Delivery

- Advancing a project from concept to completion can take well in excess of ten years, making it difficult to respond to transportation priorities
- Delays increase overall project costs, including construction costs which have greatly outpaced CPI and PPI over the last few years
- PPPs and pricing can significantly accelerate project delivery by providing upfront financing, including private debt and equity, for a project's full cost, and by transferring the risk of cost and schedule overruns to the private sector

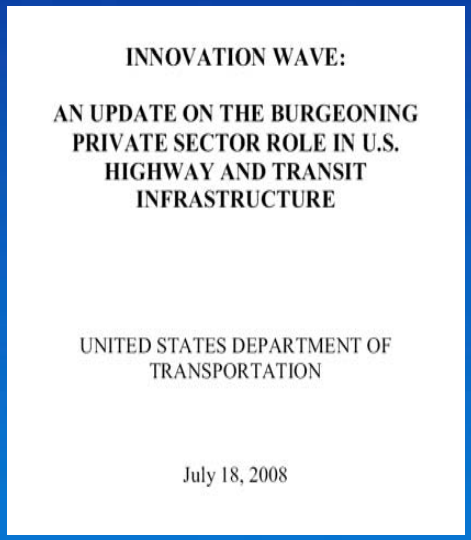
PPPs and Pricing are Key to Transp. Reform

USDOT believes that PPPs and pricing are integral to the long-term rethinking of how the United States provides transportation infrastructure

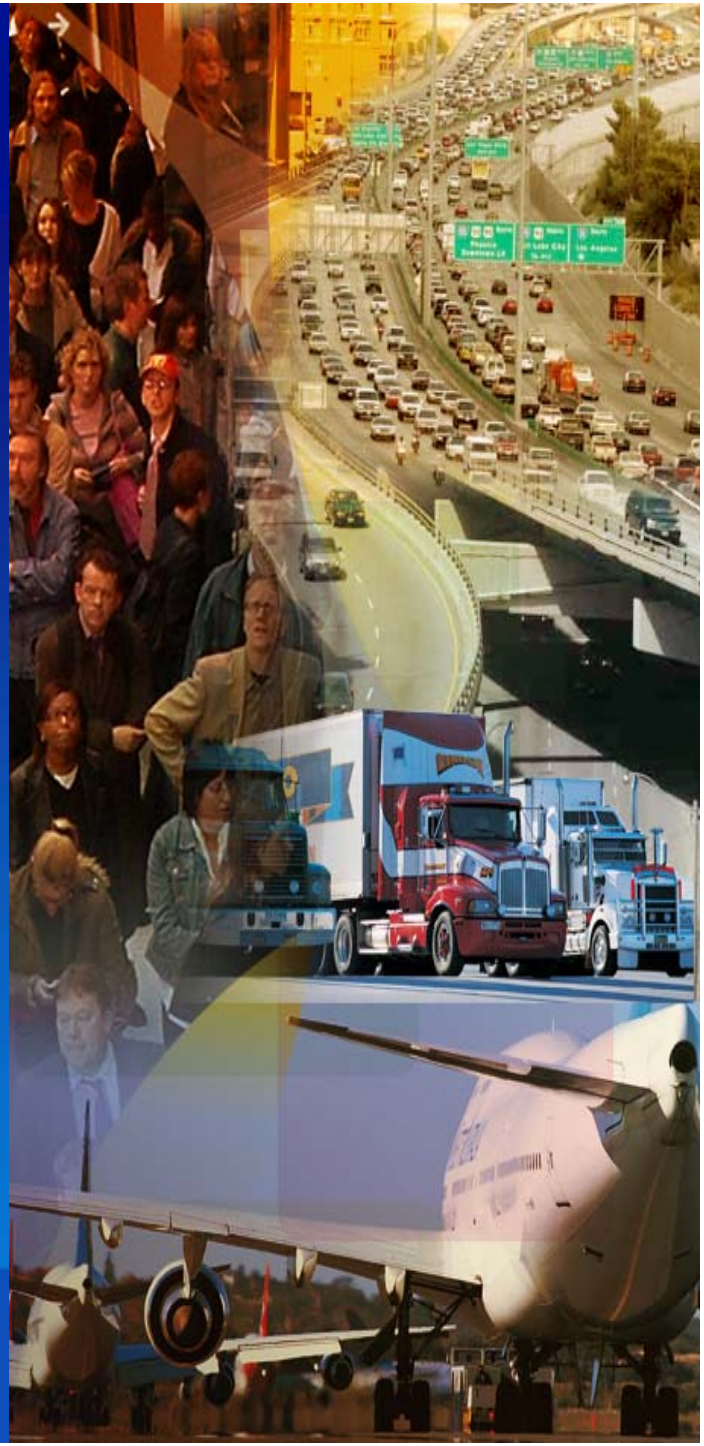


Refocus, Reform, Renew: A New Transportation Approach in America
Available at: www.FightGridlockNow.gov

Innovation Wave: An Update on the Burgeoning Private Sector Role in U.S. Highway and Transit Infrastructure
Available as a new featured resource on the FHWA PPP website, at: http://www.fhwa.dot.gov/PPP/index.htm

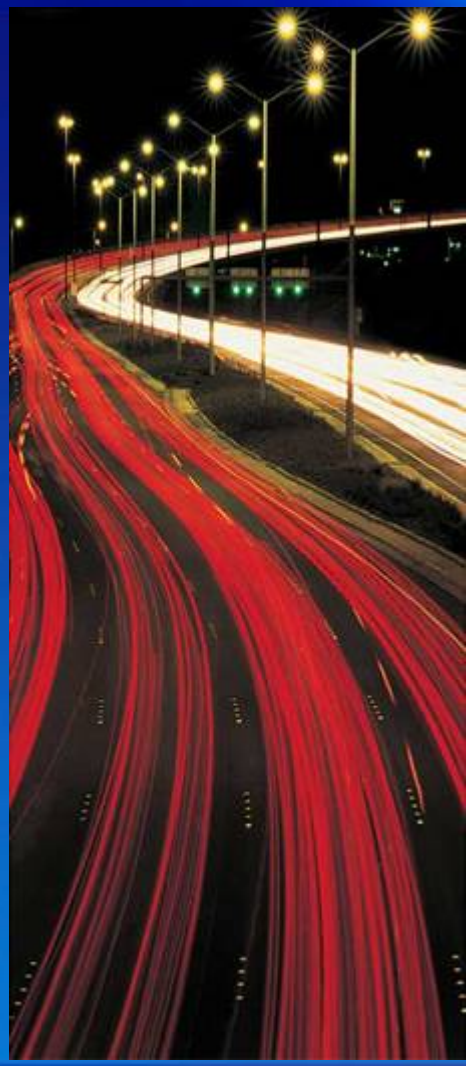


PPPs: An Overview



PPPs: An Overview

- PPPs are contractual arrangements between the public and private sector pursuant to which the private partner is responsible for a facility's:
  - design
  - construction
  - financing
  - operation and/or
  - maintenance
- Private debt and equity can be used to leverage public resources; alternatively, PPPs can be 100% privately financed
- The private partner collects revenues from direct user fees (or other dedicated revenue sources) to (i) operate the facility, (ii) repay project debt and (iii) recoup a reasonable return on its investment



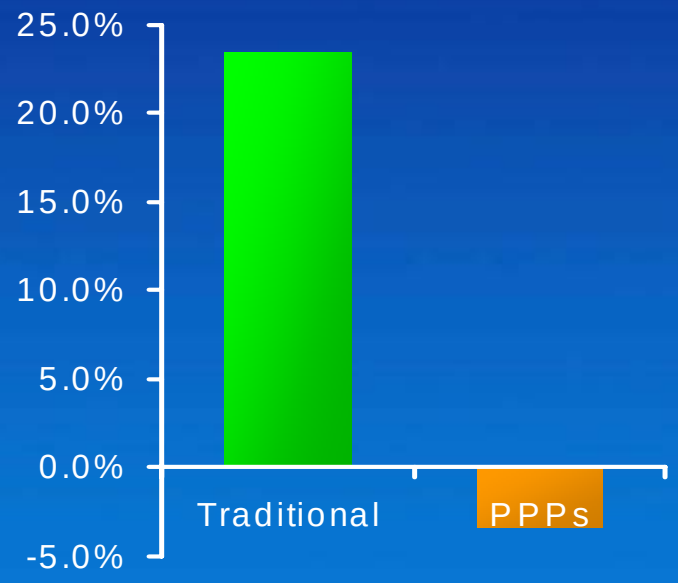
PPPs: Benefits and Efficiencies

- Efficiencies in Delivery:
  - PPPs reduce costs and accelerate project delivery by consolidating responsibility for multiple project elements in one private entity (with conventional approaches, each element of a project is procured separately and sequentially)
  - PPPs provide direct incentives for private partners to limit costs and accelerate delivery
- Allocation of Risk:
  - In PPPs, a significant portion of the project risk can be transferred to the private partner resulting in lower overall risk, reduced costs and accelerated delivery
- Innovation and Life-cycle Design:
  - Private investors have incentives to fully capitalize a project and incorporate innovations upfront to reduce long-term O&M costs
  - PPPs encourage the private sector to come forward with creative ideas by rewarding innovation

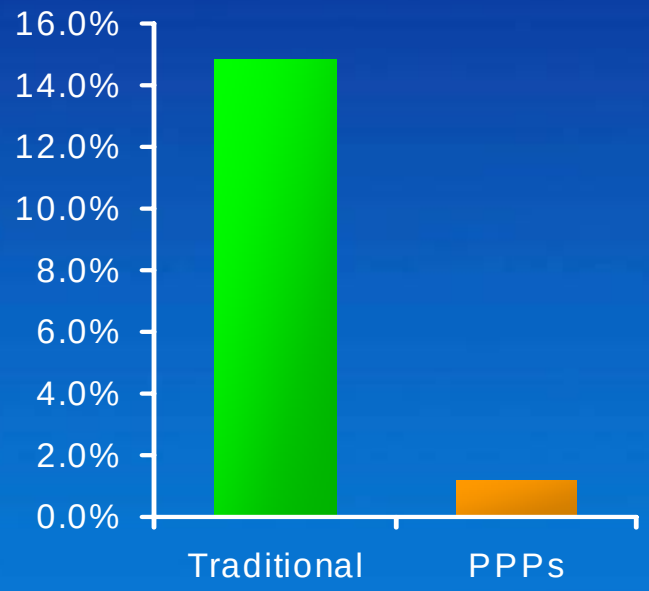
PPPs: Cost and Schedule Efficiencies

A December 2007 study of 21 PPPs and 33 traditional projects in Australia found that traditional projects experienced significant cost overruns and schedule delays while PPPs were generally delivered on time and on budget

Schedule Delays
(% of contracted schedule)



Cost Overruns
(% of contracted cost)



Source: Allen Consulting Group/University of Melbourne

PPPs: Operating Efficiencies

- The Government Accountability Office ("GAO") recently reported that "the standards [of the 2006 Indiana Toll Road PPP] actually hold the [private partner] to a higher level of performance than when the state operated the highway"

- GAO also noted that there was greater accountability for operations and maintenance of the Chicago Skyway under the 2005 PPP than there had been under public control, when there were no formal standards

PPPs: Contract Structures

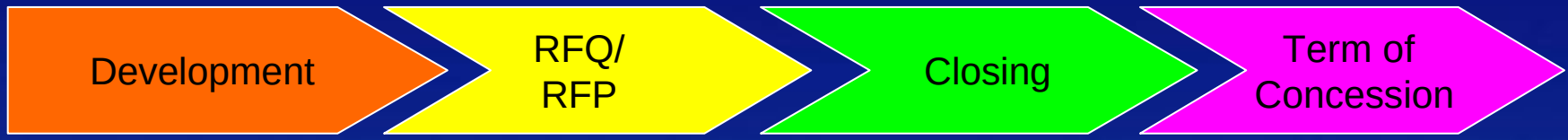
	Risks Fully or Partially Transferred to Private Sector Under Models				
PPP Model	Design Risk	Const. Risk	Finan. Risk	O&M Risk	Traffic Risk
Traditional Design-Bid-Build		X			
Design-Build	X	X			
Design-Build-Finance	X	X	X		
Design-Build-Operate-Maintain	X	X		X	
Availability Payments	X	X	X	X	
Toll Concession	X	X	X	X	X

PPPs: State Authorizing Legislation

Items to address in state legislation:

- Broad authorization vs. project specific authorization
- Multiple project elements, for new or existing facilities
- Competitive, open and transparent procurement processes
- Confidentiality of certain proprietary information
- Solicited and unsolicited proposals (deadline for competing proposals)
- Tolling, pricing and authority to set rates
- Tolls on existing roads (including interstates)
- Availability payment structures (revenue sources)
- Use of public revenue for PPPs
- Concession agreement requirements, including length of concession
- Performance standards for design, construction and O&M
- Public sector oversight and monitoring
- Use of eminent domain for PPP facilities
- No further legislative approvals required
- Reversion of facility to public sector
- Public right to buy-back concession

PPPs: Procurement Process[1]



- Obtain environmental and other approvals
- Assess the value of PPP vs. public procurement
- Develop institutional capability
- Hire financial, legal and other advisors
- Develop drafts of RFQ, RFP, concession agreement, and other project documents

- Host industry forum
- Issue RFQ
- Receive SOQs
- Shortlist proposers
- Issue preliminary RFP
- Conduct one-on-one meetings
- Consolidate feedback
- Issue final RFP
- Receive detailed proposals
- Select winning bidder based on evaluation criteria

- Execute concession agreement
- Concessionaire finalizes financing package
- Concessionaire and lenders execute financing agreements
- Concessionaire draws on financing and funding commitments

- Concessionaire completes design work and constructs the facility
- Concessionaire operates and maintains the facility
- Public sector responsible for ongoing oversight and monitoring responsibilities
- Facility reverts to public sector at the end of the term

[1] These are the components of a typical procurement process, but particular projects may require adjustments to this process

PPPs: Contents of RFQ

Description of Project

- Status of development activities, environmental approvals, ROW acquisition, utilities and other crossings
- Cost estimates, traffic and revenue forecasts
- Available public funding
- Procuring agency's legal authority
- Bonding, DBE, and other requirements

SOQ Contents

- Identify concessionaire, equity members, lead construction contractor, lead operations contractor
- Management approach and structure
- Experience and track record (including safety and legal issues)
- References
- Financial statements, credit ratings, surety and bank letters
- Conceptual approach to project

Procurement Process

- Tentative schedule for RFQ, RFP
- Date for submitting SOQs
- Industry forum/pre-SOQ workshop
- Procedure for questions and requests for clarification

SOQ Evaluation Process

- Pass/fail items and responsiveness
- General experience (financial and technical) vs. conceptual project approach
- Protest Procedures

PPPs: Concession Agreement

The concession agreement typically includes the following:

- Grant of concession and the right to collect tolls;
- Length of concession;
- Toll rate structure;
- Concession payments;
- Design and construction obligations; planning and approvals;
- Detailed operation and maintenance standards;
- Procuring agency oversight responsibilities;
- Change orders and other modifications;
- Competing facilities;
- Financing obligations and lender's rights;
- Insurance and bonding requirements; indemnity provisions;
- Force majeure and other relief/compensation events;
- Default, remedies and termination rights (including buy-back);
- Reps and warranties; conditions to closing; and covenants;
- Dispute resolution provisions; and
- Other miscellaneous provisions.

PPPs Are Happening –
Long-Term Concessions for Existing Facilities in the U.S.

PPP	Location	Status	Facility
1. Chicago Skyway	Illinois	Closed	7.8-mile toll road in Chicago
2. Indiana Toll Road	Indiana	Closed	157-mile toll road in northern Indiana
3. Pocahontas Parkway	Virginia	Closed	14-mile toll road outside of Richmond
4. Northwest Parkway	Colorado	Closed	9-mile toll road outside of Denver
5. Dulles Greenway	Virginia	Closed	14-mile toll road between Leesburg and Dulles International Airport
6. Pennsylvania Turnpike	Pennsylvania	Winning Bidder Selected	531-mile turnpike system (PPP requires legislative approval)
7. Alligator Alley	Florida	RFQ Issued	78-mile toll road in south Florida
8. Greenville Southern Connector	South Carolina	RFQ Issued	16-mile toll road in Greenville

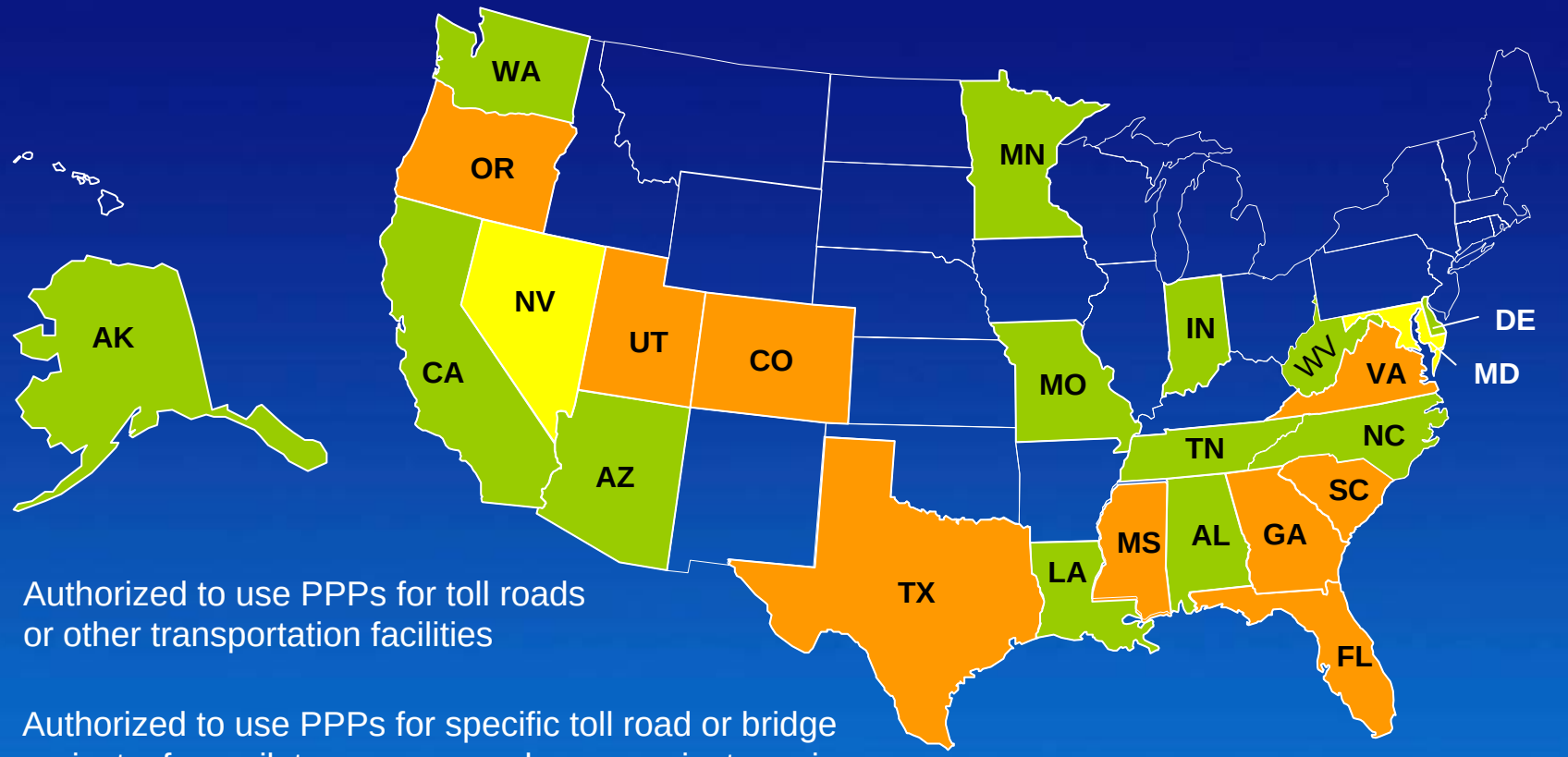
PPPs Are Happening –
Long-Term Concessions for New Capacity in the U.S.

Project	Location	Status
1. TTC-35	Texas	Concession Awarded
2. SH-130 Segments 5&6	Texas	Closed
3. I-69/TTC	Texas	Winning Bidder Selected
4. I-635	Texas	RFP Issued
5. North Tarrant Express	Texas	Bidders Shortlisted
6. DFW Connector	Texas	Bidders Shortlisted
7. Capital Beltway HOT Lanes	Virginia	Closed
8. I-95/I-395 HOT Lanes	Virginia	Interim Agreement Executed
9. US Route 460	Virginia	Bidders Shortlisted
10. Midtown Corridor Tunnel	Virginia	Request for Solicitations
11. Mid-Currituck Bridge	North Carolina	Bidders Shortlisted
12. Jackson Airport Parkway	Mississippi	SOQs Received

Project	Location	Status
13. Port of Miami Tunnel	Florida	Preferred Bidder Selected
14. I-595 Improvements	Florida	Bidders Shortlisted
15. First Coast Outer Beltway	Florida	RFQ Issued
16. Northwest Corridor	Georgia	Development Agreement Executed
17. I-285 Northwest TOT Lanes	Georgia	Evaluation of Proposers
18. GA-400 Crossroads Region	Georgia	Evaluation of Proposal
19. I-20 Managed Lanes	Georgia	Pre-Solicitation
20. Missouri Safe & Sound Bridge Program	Missouri	Preferred Bidder Selected
21. Oakland Airport Connector	California	RFP Issued
22. Knik Arm Crossing Project	Alaska	Bidders Shortlisted
23. Denver RTD	Colorado	RFQ Issued
24. I-73	South Carolina	Request for Conceptual Proposals

List of projects in various stages of procurement, may not be exhaustive

States With Legislation Authorizing PPPs



Authorized to use PPPs for toll roads or other transportation facilities

Authorized to use PPPs for specific toll road or bridge projects, for a pilot program, or where a project receives specific legislative approval

Authorized to use PPPs for certain transportation projects, but not toll roads

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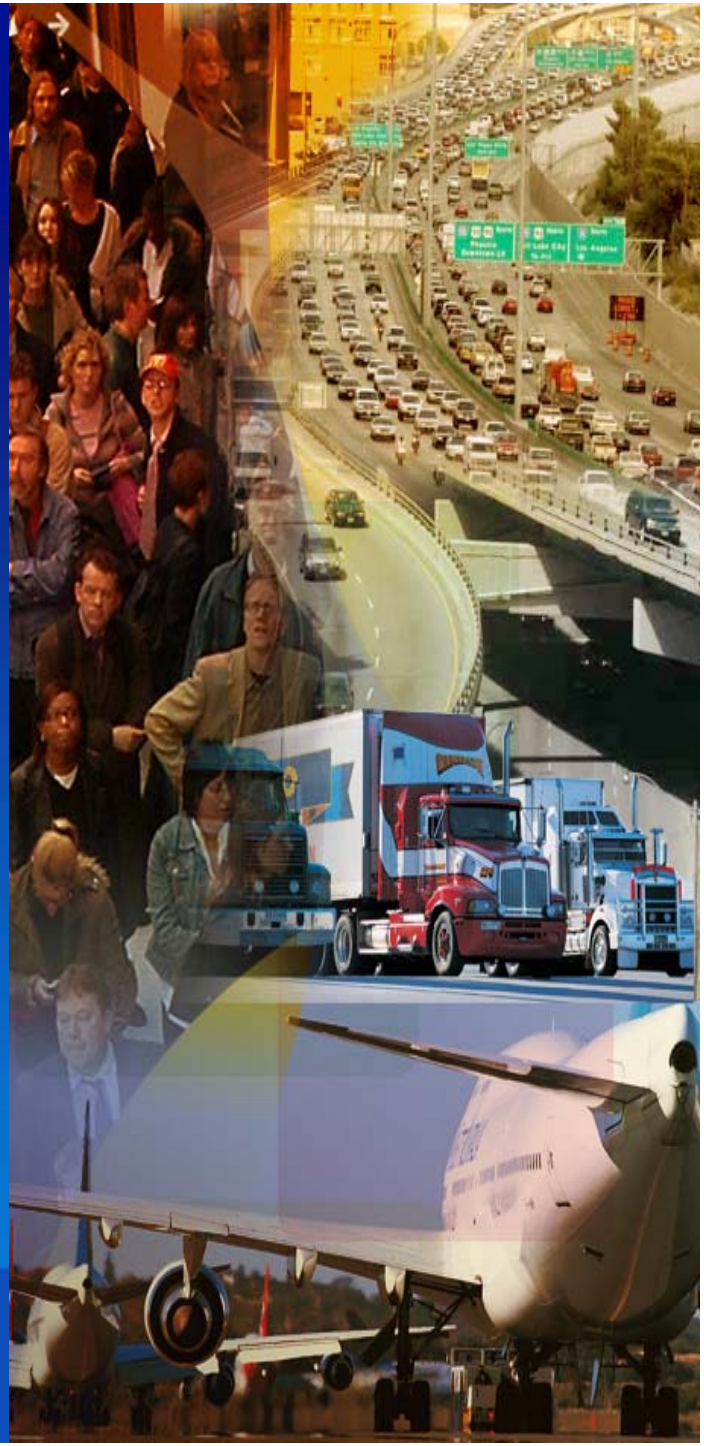
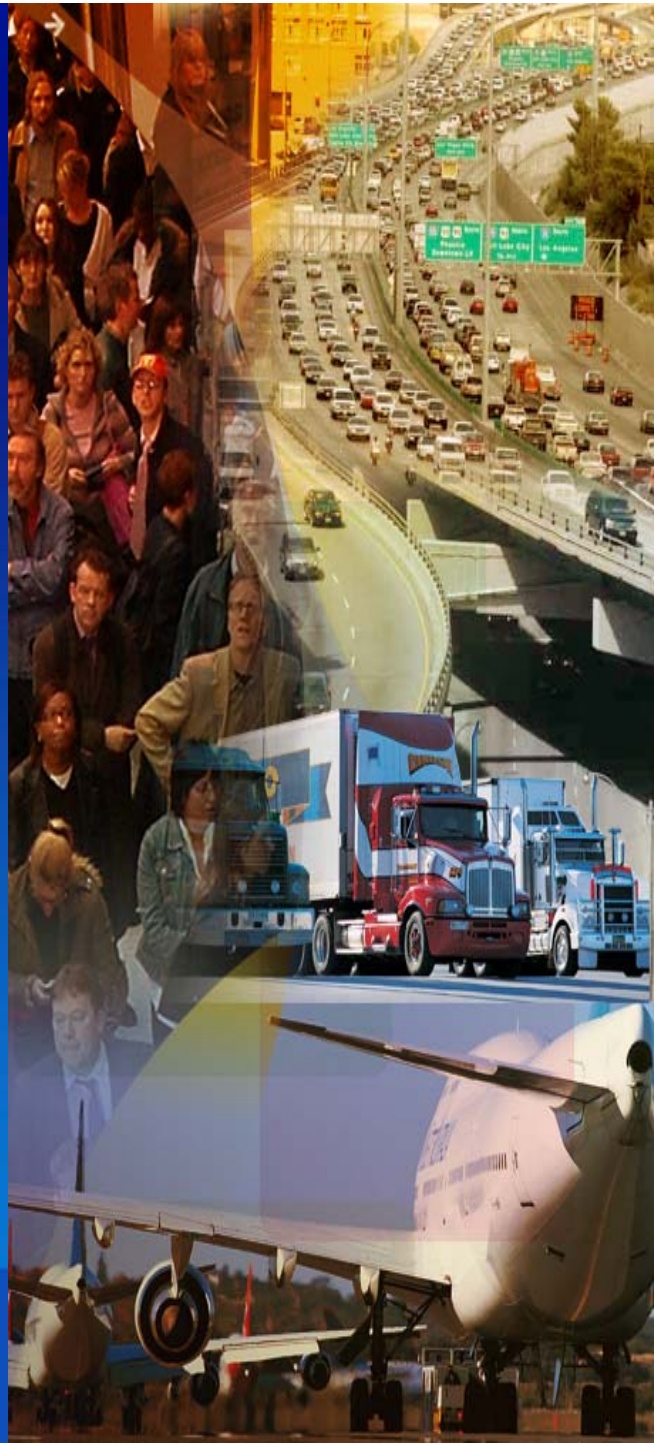
Pricing: An Overview

(Presentation by
Patrick DeCorla-Souza)



Federal Programs



Private Activity Bonds

- SAFETEA-LU amended Section 142 of the Internal Revenue Code to permit the issuance of private activity bonds ("PABs") to finance privately developed and operated highway and freight transfer facilities
  - Tax-exempt bonds for projects developed, designed, financed, constructed, operated and maintained by the private sector
  - Public entity acts as a conduit issuer for the private developer
  - $15 billion national volume cap
  - Secretary of Transportation responsible for allocation of cap
  - Not subject to the state volume caps that typically apply to other types of private activity bonds

PABs Allocations

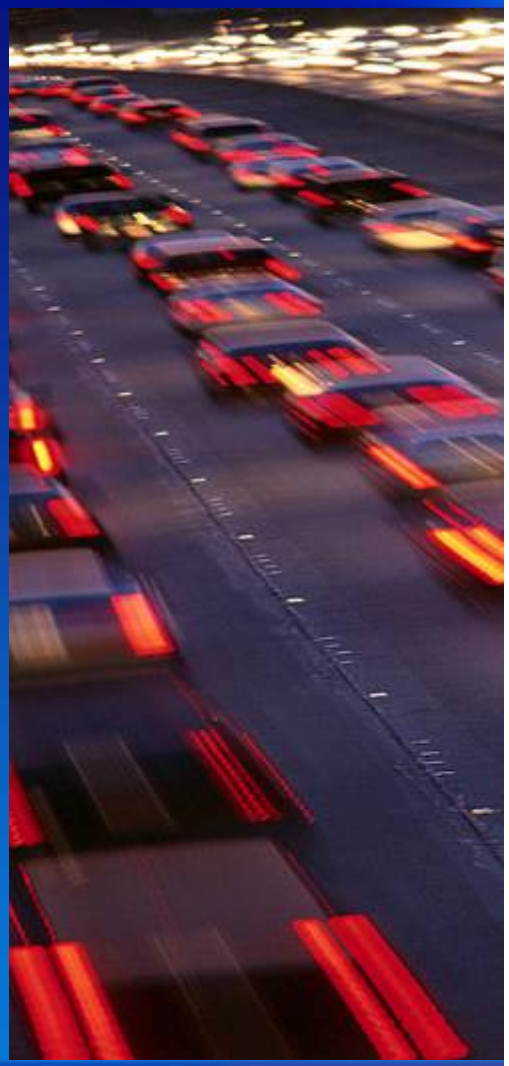
Approved Allocations	Amount of Allocation
Port of Miami Tunnel, Florida	$980,000,000
Safe & Sound Bridge Improvement Program, Missouri	$700,000,000
Knik Arm Crossing, Alaska	$600,000,000
Capital Beltway HOT Lanes, Virginia (*issued 6-12-08*)	$589,000,000
IH-635 (LBJ Freeway), Texas	$288,000,000
Pennsylvania Turnpike Capital Improvements	$2,000,000,000
Ambassador Bridge Gateway Project – Phase I	$212,600,000
Total Approved Allocations	**$5,369,600,000**

Transportation Infrastructure Finance and Innovation Act (TIFIA)

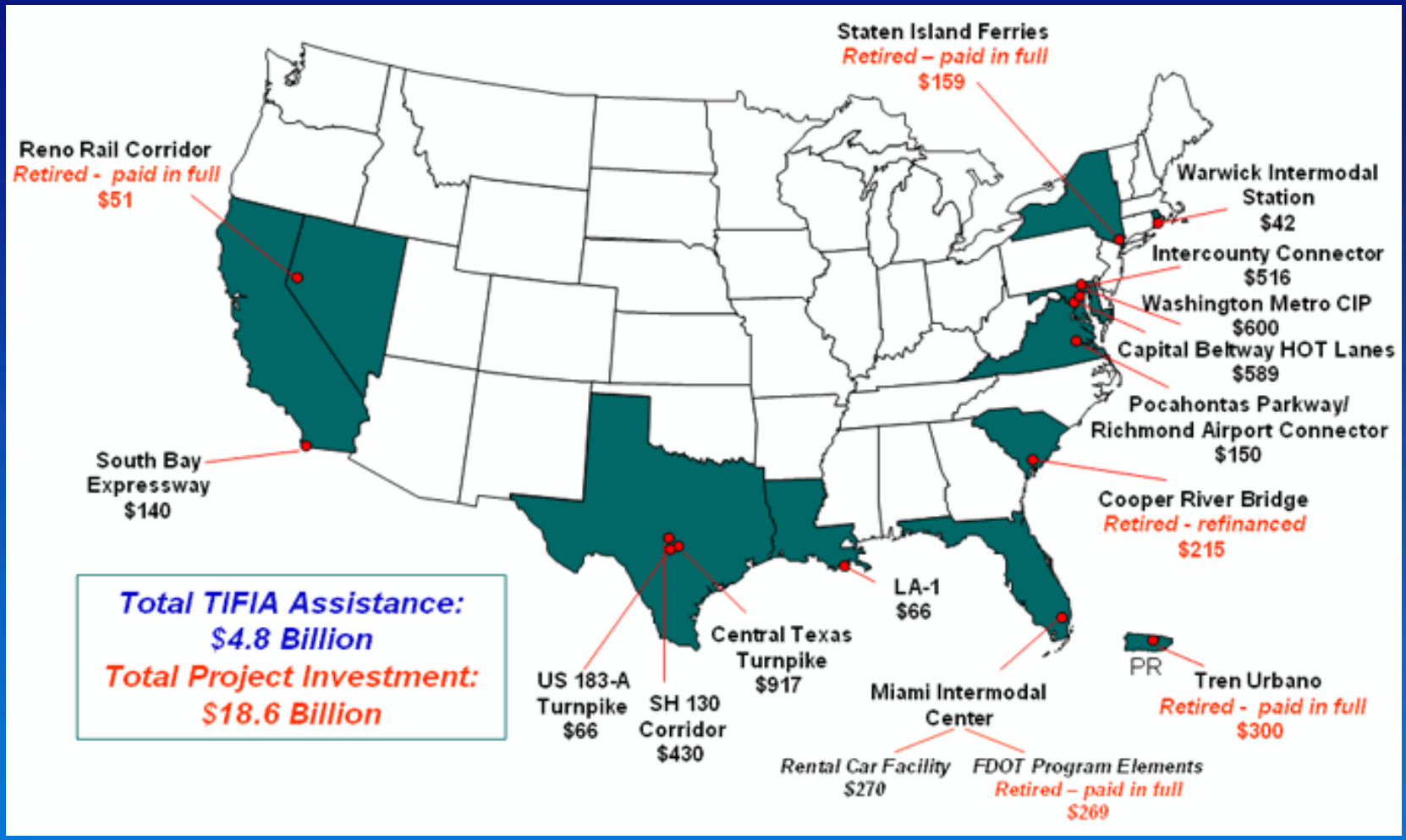
- The TIFIA program provides credit assistance in the form of direct loans, loan guarantees, and standby lines of credit (rather than grants) to projects of national or regional significance
- The primary goals of the TIFIA program are to leverage limited Federal resources and stimulate private capital investment in transportation infrastructure
- Key Objectives
  - Facilitate projects with significant public benefits
  - Encourage new revenue streams and private participation
  - Fill capital market gaps for secondary/subordinate capital
  - Be a flexible, “patient” investor willing to take on investor concerns about investment horizon, liquidity, predictability and risk
  - Limit Federal exposure by relying on market discipline

Major Requirements of TIFIA Program

- Large surface transportation projects ($50 million; $15 million for ITS)
- TIFIA contribution limited to 33 percent
- Senior debt must be rated investment grade
- Dedicated revenues for repayment
- Applicable Federal requirements (Titles 23/49, NEPA, etc.)
- Public or private highway, transit, rail and port projects are eligible



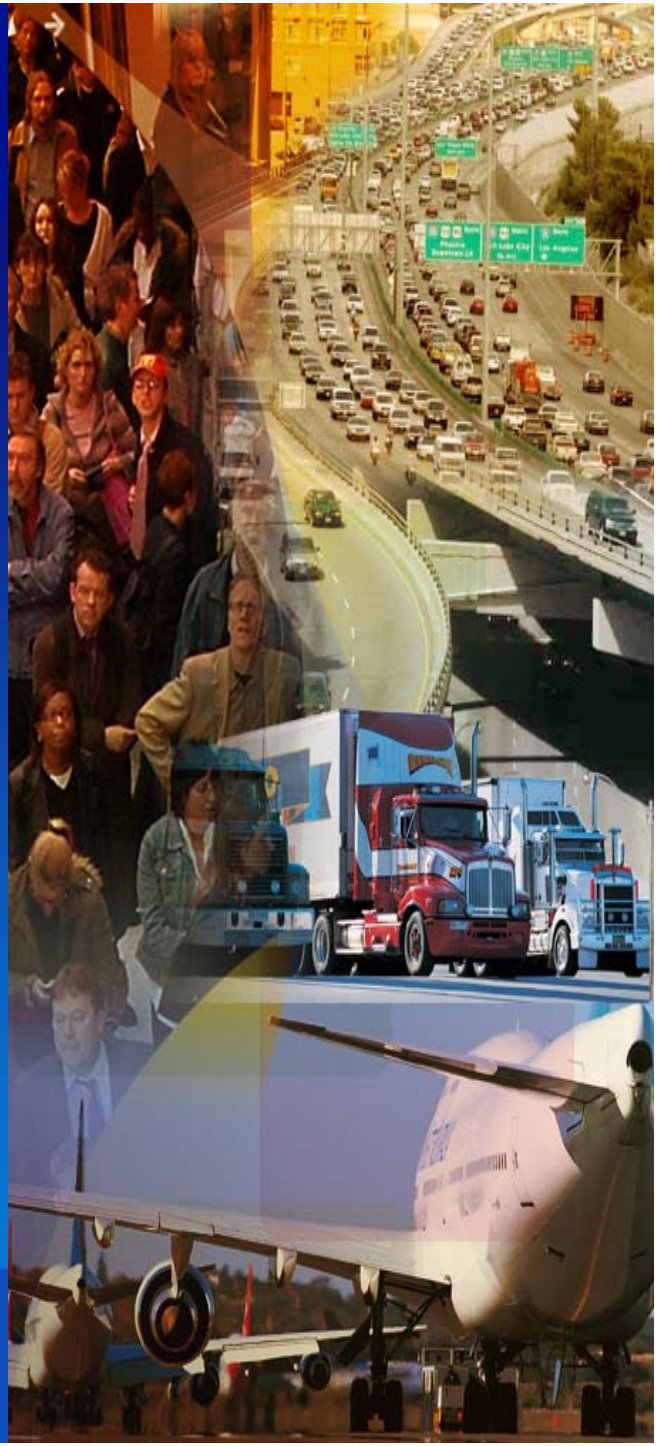
TIFIA Projects (in millions of dollars)



Interstate Tolling Programs

- *Interstate System Construction Toll Pilot Program*: Authorizes tolling on three Interstate facilities for construction of new Interstate highways; Tolling must be the most efficient and economical way to finance construction
- *Interstate System Reconstruction and Rehabilitation Pilot Program*: Authorizes tolling on three existing Interstate facilities for reconstruction or rehabilitation of Interstate corridors that could not otherwise be adequately maintained or improved
- *Value Pricing Pilot Program*: Authorizes tolls and provides grants for value pricing pilot projects that manage congestion
- *High Occupancy Toll (HOT) Lanes Program*: Authorizes the conversion of high occupancy vehicle (HOV) lanes into high occupancy toll (HOT) lanes
- *Express Lanes Demonstration Program*: Authorizes variably-priced tolls for demonstration projects on Interstate facilities to manage congestion, reduce emissions in a nonattainment or maintenance air quality area, or finance additional lanes to reduce congestion
- *Section 129 Toll Agreements*: Authorizes tolling for five types of highway construction, including reconstruction of Interstate bridges and tunnels, pursuant to 23 U.S.C. 129

Case Studies



Capital Beltway HOT Lanes Project

- On December 20, 2007, the Virginia DOT and a private sector consortium reached commercial and financial close on the Capital Beltway HOT Lanes Project
- 80-year concession to design, build, finance, operate and maintain HOT lanes on 14-mile portion of the Beltway around southwest Washington, DC – one of the busiest corridors in the country
- Concessionaire will construct two new lanes and convert the two innermost existing lanes into HOT lanes
- Toll rate will be based on demand and will fluctuate to reflect real-time traffic conditions and maintain free flow traffic on the HOT Lanes
- High occupancy vehicles with three or more people, buses and emergency vehicles ("HOV3+") will be exempt from tolls
- Private consortium led by Transurban, an Australian toll road operator, and Fluor, an American contractor and developer

Capital Beltway HOT Lanes Project (continued)

- The concessionaire is using toll revenues to be collected on the HOT lanes to finance approximately $1.5 billion of the project's expected cost of approximately $1.9 billion

- The financing package includes:
  - $588 million loan from the USDOT's TIFIA program
  - $589 million in private activity bonds authorized by USDOT
  - $350 million in private equity from the members of the concessionaire
  - $409 million funded from Federal-aid and State sources

SH-130 Segments 5 & 6

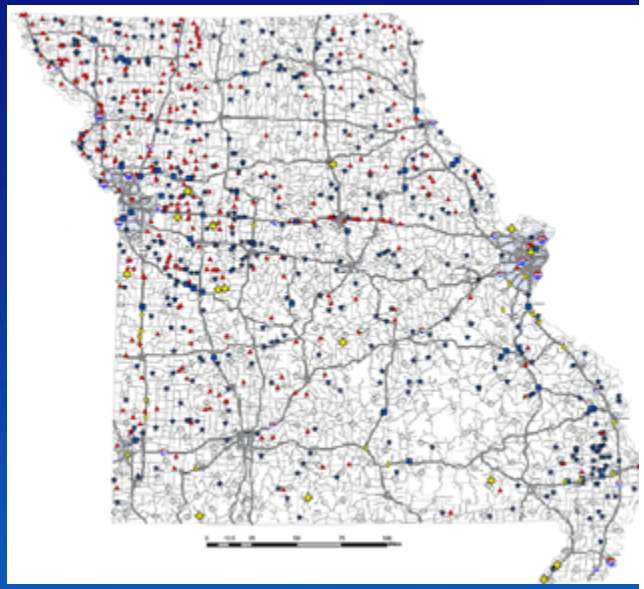
- The Texas DOT granted a private sector consortium a 50-year concession to design, build, finance, operate and maintain Segments 5 & 6 of SH-130
- The $1.36 billion, 40-mile project provides two segments of SH-130, a new highway between San Antonio and Austin
- The private sector consortium consists of Cintra, a Spanish developer, and Zachry American Infrastructure, an American contractor and developer
- The project reached financial close in March 2008
- The consortium paid $25.8 million upfront to be used for other projects in the region
- Revenue sharing provision gives Texas a yearly share in the toll revenues
- Financing package includes almost $200 million in private equity; a senior bank debt facility, and a $430 million secured loan from the USDOT's TIFIA program

South Bay Expressway

- New 9.3 mile, $635 million toll road in San Diego, California, opened in November 2007
- Concessionaire designed, built, and financed the toll road, and will operate and maintain it until 2042
- Northern 3.8 mile “gap” segment is publicly financed
- Timeline
  - 1959: Part of planned freeway system
  - 1989: Legislation to develop as a PPP
  - 1991: Concession awarded to Parsons Brinckerhoff-led consortium
  - 2002: Macquarie purchased a majority interest in the concession
- Financing Package:
  - $321 million senior bank facility
  - $154 million TIFIA subordinated loan
  - $160 million private equity

Missouri Safe & Sound Bridge Program

- Private concessionaire will repair or replace more than 800 of Missouri's lowest rated bridges and operate and maintain them for 25 years
- $600 to $800 million project will be privately financed
- USDOT approved an allocation of up to $700 million of PABs to finance the project
- Missouri will make periodic payments to the concessionaire (availability payments) based on the concessionaire's performance



- Private consortium consists of Zachry American Infrastructure, Parsons Transportation Group, Fred Weber, Inc., Clarkson Construction, HNTB and Infrastructure Corporation of America
- Work expected to begin around the State once final negotiations are completed

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Questions, Comments, and Discussion